



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE SCIENTIFIC MONTHLY

EDITED BY J. McKEEN CATTELL

CONTENTS

THE WOODLOT—A PROBLEM FOR NEW ENGLAND FARMERS. Professor J. W. TOUMEY	193
THE INFLUENCE OF ARSENIC ON THE BACTERIAL ACTIVITIES OF SOILS. DR. J. E. GREAVES	204
THE DEVELOPMENT OF PUBLIC OPINION IN RUSSIA DURING THE WAR. ROBERT P. BLAKE	210
PATTERNS FOR WAR OR PEACE. DR. ELSIE CLEWS PARSONS	229
IMPORTANT FACTORS IN THE QUESTION OF RESPONSIBLE BEHAVIOR. Professor GEORGE FREDERICK ARPS	239
NATURAL SELECTION AND THE SURVIVAL OF THE FITTEST. Professor I. W. HOWERTH	259
RACE SUICIDE IN THE UNITED STATES. DR. WARREN S. THOMPSON	258
CLIMATIC INFLUENCES ON AMERICAN ARCHITECTURE. DR. ANDREW H. PALMER	270
THE PROGRESS OF SCIENCE: The National Research Council; Explorations in The Hawaiian Islands; Scientific Items	284

THE SCIENCE PRESS

LANCASTER, PA.

GARRISON, N. Y.

NEW YORK: SUB-STATION 84

A Remarkable Textbook

Barber's First Course in General Science

By FREDERICK D. BARBER, Professor of Physics in the Illinois State Normal University, MERTON L. FULLER, Lecturer on Meteorology in the Bradley Polytechnic Institute, JOHN L. PRICER, Professor of Biology in the Illinois State Normal University, and HOWARD W. ADAMS, Professor of Chemistry in the same. vii+588 pp. of text. 12mo. \$1.25.

A recent notable endorsement of this book occurred in Minneapolis. A Committee on General Science, representing each High School in the city, was asked to outline a course in Science for first year High School. After making the outline they considered the textbook situation. In this regard, the Committee reports as follows:

"We feel that, in Science, a book for first year High School use should be simple in language, should begin without presupposing too much knowledge on the part of the student, should have an abundance of good pictures and plenty of material to choose from.

Barber's *First Course in General Science* seems to us to best meet these requirements and in addition it suggests materials for home experiments requiring no unusual apparatus, and requires no scientific measurements during the course. We recommend its adoption."

Other Interesting Opinions on the Book Follow:

SCHOOL SCIENCE AND MATHEMATICS:—It is one of the very best books on general science that have ever been published. The biological as well as the physical side of the subject is treated with great fairness. There is more material in the text than can be well used in one year's work on the subject. This, however, a good fault, as it gives the instructor a wide range of subjects. The book is written in a style which will at once command not only the attention of the teacher, but that of the pupil as well. It is interesting from cover to cover. Many new and ingenious features are presented. The drawings and halftones have been selected for the purpose of illustrating points in the text, as well as for the purpose of attracting the pupil and holding his attention. There are 375 of these illustrations. There is no end to the good things which might be said concerning this volume, and the advice of the writer to any school board about to adopt a text in general science is to become thoroughly familiar with this book before making a final decision.

WALTER BARR, Keokuk, Iowa:—Today when I showed Barber's Science to the manager and department heads of the Mississippi River Power Co., including probably the best engineers of America possible to assemble accidentally as a group, the exclamation around the table was: "If we only could have had a book like this when we were in school." Something similar in my own mind caused me to determine to give the book to my own son altho he is in only the eighth grade.

G. M. WILSON, Iowa State College:—I have not been particularly favorable to the general science idea, but I am satisfied now that this was due to the kind of texts which came to my attention and the way it happened to be handled in places where I had knowledge of its teaching. I am satisfied that Professor Barber, in this volume, has the work started on the right idea. It is meant to be useful, practical material closely connected with explanation of every day affairs. It seems to me an unusual contribution along this line. It will mean, of course, that others will follow, and that we may hope to have general science work put on such a practical basis that it will win a permanent place in the schools.

Henry Holt and Company

NEW YORK

BOSTON

CHICAGO

The Fundus Oculi of Birds

Especially as Viewed by the Ophthalmoscope

A Study in Comparative Anatomy and Physiology by CASEY ALBERT WOOD, M.D., Head Professor of Ophthalmology, University of Illinois; Fellow of the American Association for the Advancement of Science; Fellow of the London Zoological Society.

Illustrated by 145 drawings in the text; also by 61 colored paintings prepared for this work by ARTHUR W. HEAD, F.Z.S., London.

200 pages, handsomely bound in cloth. \$15.00, carriage included.

The Lakeside Press

CHICAGO, 1917

To be had only from

H. A. Fox

Chicago Savings Bank Building, State and Madison Streets, Chicago

SCIENCE PROGRESS

A QUARTERLY REVIEW OF SCIENTIFIC THOUGHT, WORK AND AFFAIRS

EDITED BY SIR RONALD ROSS, F.R.S., D.Sc., M.D., Etc.

SCIENCE PROGRESS owes its origin to an endeavor to found a scientific journal containing original papers and summaries of the present state of knowledge in all branches of science. The necessity for such a journal is to be found in the fact that, with the specialization which necessarily accompanies the modern development of scientific work and thought, it is increasingly difficult for even the professional man of science to keep in touch with the progress achieved and the trend of thought in subjects other than those in which his immediate interests lie. This difficulty is felt by teachers and students in schools and colleges, and by the general educated public interested in scientific questions. SCIENCE PROGRESS claims to have filled this want.

Published early in January, April, July, and October, by John Murray, 50a, Albemarle Street, London, W., England. Annual Subscription, \$4.80 (including postage). Single numbers \$1.20 (postage 10 cents).

SCHOOL AND SOCIETY

A weekly journal, which began publication on January 2, 1915, covering the field of education in relation to the problems of American democracy. Its objects are the advancement of education as a science and the adjustment of our lower and higher schools to the needs of modern life. Each number ordinarily contains articles and addresses of some length, shorter contributions, discussion and correspondence, reviews and abstracts, reports and quotations, proceedings of societies and a department of educational notes and news.

Annual Subscription \$3.00; single copies 10 cents

THE SCIENTIFIC MONTHLY

An illustrated magazine, devoted to the diffusion of science, publishing articles by leading authorities in all departments of pure and applied science, including the applications of science to education and society. Conducted on the editorial lines followed by *The Popular Science Monthly* since 1900.

Annual Subscription \$3.00; single copies 30 cents

SCIENCE

A weekly journal, established in 1883, devoted to the advancement of the natural and exact sciences, the official organ of the American Association for the Advancement of Science. For twenty years SCIENCE has been generally regarded as the professional journal of American men of science.

Annual Subscription \$5.00; single copies 15 cents

THE AMERICAN NATURALIST

A monthly journal, established in 1867, devoted to the biological sciences with special reference to the factors of organic evolution.

Annual subscription \$4.00; single copies 40 cents

AMERICAN MEN OF SCIENCE

A biographical directory, containing the records of about 5,500 scientific men.

Price, \$5.00 net

SCIENCE AND EDUCATION

A series of volumes for the promotion of scientific research and educational progress.

Volume I. The Foundations of Science

By H. POINCARÉ. Containing the authorized English translation by George Bruce Halsted of "Science and Hypothesis," "The Value of Science," and "Science and Method."

Price, \$3.00 net

Volume II. Medical Research and Education

By RICHARD MILLS PEARCE, WILLIAM H. WELCH, C. S. MINOT and other authors.

Price, \$3.00 net

Volume III. University Control

By J. McKEEN CATTELL and other authors.

Price, \$3.00 net

THE SCIENCE PRESS

LANCASTER, PA.

SUB-STATION 84, NEW YORK CITY

GARRISON, N. Y.

To THE SCIENCE PRESS

Lancaster, Pa., and Garrison, N. Y.

Please find enclosed check or money order for.....
in payment for the publications checked above.

Name.....

Address.....

Date.....

Revisions of Important Text-Books

Thompson's Elementary Lessons in Electricity and Magnetism

By SILVANUS P. THOMPSON. Revised by the author

Cloth, crown octavo, xv + 706 pp., 377 illustrations. \$1.50.

After a wide use for twenty-one years, this book now comes from the press in a completely revised form, which incorporates the progress of the science during this period, and brings the treatment abreast of the most recent developments in theory and practice.

Not only have the various topics taken up in the older book been brought to date and expanded where necessary to meet the needs of teacher and student, but the newer phases of the subject have been covered in the same clear direct manner which made the earlier volume popular as a text.

Entirely new chapters are devoted to the Electron Theory, to Wireless Telegraphy, to the Transmission and Distribution of Power, and to Electric Traction. In fact, progress in the development of the industrial applications of electricity has been so great in the past decade as to necessitate the remodeling of the latter half of the book. Throughout the book modern progress in construction and industrial application is described and illustrated by many drawings.

The general appearance of the new edition is much more attractive and serviceable than that of the old edition. The type is much larger, the space between lines is greater, and the number of illustrations has been increased by over 25%. Not only has the size of the page been increased, but the number of pages has also been increased by about ten per cent. Although these changes have involved a very heavy increase in manufacturing expense, the retail price is only ten cents more than that of the old edition. The price has been kept unusually low in order to make it possible for instructors to require students in the first general college course on physics to purchase this book in addition to the textbook on general physics.

"I think the book, as revised, will be very satisfactory, and, as far as I can judge from a careful inspection, it will meet the requirements of the present day as well as the earlier editions ten or fifteen years ago met the requirements of that day. To a certain extent perhaps a book written at a later date cannot quite meet this requirement because of the growth of the subject treated, but I think the present volume does very well."—Professor C. R. Cross, Head of the Department of Physics in the Massachusetts Institute of Technology.

Huxley's Lessons in Elementary Physiology

By THOMAS H. HUXLEY, Revised by Joseph Barcroft,
King's College, Cambridge.

Cloth, 12mo, xxiv+604 pp., 185 illustrations. \$1.60

A thorough and substantial revision of this historic masterpiece, in which new material and additional illustrations have been included and further text-book apparatus provided. The manner in which Professor Barcroft has made this revision is best described in his preface, from which we quote:

"In approaching the revision of 'Huxley's Physiology,' my feelings have been similar to those of an architect to whom is entrusted the restoration of a historic building designed by a master hand.

Written by Huxley, the book was revised, and in fact almost rewritten, by Foster. The former was as great a writer as any scientist of his time, the latter may almost be said to have created English Physiology.

To 'restore' the work of these men from the dilapidations made by two decades of scientific progress is the task now entrusted to me. The sense of responsibility with which I approach it is, if possible, heightened by the affection which I have for the memory of Foster, who was my master.

I have faithfully left untouched any portion of the fabric in which there was not an actual flaw; but where the structure needed repair, it seemed to me due not only to the readers of the book but to the memory of the author, that the repair should be thorough, substantial, and simple. Such have been the principles on which I have tried to carry out my work."

Published at 64-
66 Fifth Ave-
nue, New York

THE MACMILLAN COMPANY

On Sale
Wherever
Books are sold

"Humanized Science"

is what a reviewer calls

An Introduction to Science

By BERTHA M. CLARK, Ph.D., Head of Science Department, William Penn High School, Philadelphia. 494 pages. Price, \$1.20

"Dr. Bertha Clark has attempted, successfully, to build up a body of scientific material for freshmen in high school, drawn from the problems of a scientific nature which confront the pupils in their home life and outdoor life. The book is, therefore, not 'pure science' but 'humanized science'; and the author attempts to organize these problems and their solutions so as to leave the pupils with a scientific point of view of their problems and their solution. Hence we have an introduction to science of a kind likely to be of great value to the pupil."

AMERICAN BOOK COMPANY
New York Cincinnati Chicago



The New Volume now issued
in the authorized translation of

GOURSAT'S

Course in Mathematical Analysis

Translated by E. R. HEDRICK, Professor of Mathematics, University of Missouri, and OTTO DUNKEL, Assistant Professor of Mathematics, Washington University, St. Louis.

Volume II—Part II—Differential Equations, 300 pages, with diagrams, \$2.75.

THE FULL COURSE

Volume I—Derivatives and Differentials, Definite Integrals, Expansion in Series, Applications to Geometry. 548 pages, with diagrams, \$4.00.

Volume II—Part I—Functions of a Complex Variable, 259 pages, with diagrams, \$2.75.

Part II—Differential Equations, 300 pages, with diagrams, \$2.75.

Descriptive circular on application

Ginn and Company

Boston New York Chicago London
Atlanta Dallas Columbus San Francisco

The Ellen Richards Research Prize

The Naples Table Association for Promoting Laboratory Research by Women announces the offer of a research prize of \$1000.00 for the best thesis written by a woman embodying new observations and new conclusions based on independent laboratory research in Biology (including Psychology), Chemistry or Physics. Theses offered in competition must be in the hands of Chairman of the Committee on the Prize before February 25, 1917. Application blanks may be obtained from the secretary, Mrs. Ada Wing Mead, 283 Wayland Avenue, Providence, R. I.

JULIEN'S POWER AND FOOT LATHES

Use of Geologists, Mineralogists, Petrographers, Metallurgists, Mining Engineers, in SLICING and POLISHING all hard substances, rocks, etc., and in preparation of MICROSCOPIC THIN SECTIONS.

GUSTAVUS D. JULIEN

3 Webster Terrace NEW ROCHELLE, N. Y.

LEARN TO BE A WATCHMAKER

BRADLEY POLYTECHNIC INSTITUTE
Horological Department

PEORIA, ILLINOIS

Formerly Parsons Horological Inst.

Largest and Best Watch School
in America

We teach Watch Work, Jewelry, Engraving, Clock Work, Optics, Tuition reasonable. Board and rooms near school at moderate rates. Send for Catalog of Information.



This entire building used exclusively as a watch school.

Georgetown University

School of Medicine and Dental Department

The Sixty-fourth Session will begin September 28th, 1914, and continue eight and one-half months. Six-Year Collegiate and Medical Course leading to degrees B.S. and M.D. Practical laboratory work under special instructors, in Anatomy, Physiology, Chemistry, Histology, Pathology and Bacteriology. Ample facilities for clinical experience and practical work in hospitals of city and in the University Hospital, containing in all over 3000 beds. For particulars address

GEORGE M. KOBER, M.D.

Dean School of Medicine, 1819 Q Street

SHIRLEY W. BOWLES, D.D.S.

Dean Dental Department, 1616 Eye Street, N. W.
Washington, D. C.

PATENTS

BALDWIN & WIGHT

25 Grant Place, Washington, D. C.

Patents, Trade-Marks and Copyrights

Practice before the Patent Office, Library of Congress and Patent, Trade-Mark and Copyright Courts.
Over 20 years' experience.

Reference: Columbia National Bank, Washington, D. C.

Other references furnished if desired.